

What is claimed is:

1. A human-machine interface system comprising:
a network; and
a plurality of nodes that are interconnected with the network, wherein human-machine interface functions are actualized in forms of distributed objects allocated to
5 the nodes and are realized by mediating interaction between the nodes.
2. A human-machine interface system according to claim 1, wherein each of the plurality of nodes corresponds to an application node that performs input/output functions of information for a human user in execution of a specific application by way of the human-machine interface function thereof, a service node that processes the
5 information input to or output from the application node, or a composite node that acts as an application node and/or a service node.
3. A human-machine interface system according to claim 2, wherein there are provided a low-order service node or a low-order composite node that performs data processing depending upon expression media such as sound and picture as well as a high-order service node or a high-order composite node that performs data processing
5 independently from the expression media, so that the high-order service node or the high-order composite node is commonly shared by the low-order service node or the low-order composite node that highly depends upon different expression media respectively.
4. A human-machine interface system according to claim 2 or 3 wherein the

T0574054960

application node or the composite node sends a start request of a prescribed service and its processing data to the service node or another composite node which in turn produces input information or output information for the application node or the

- 5 composite node.

5. A human-machine interface system according to any one of claims 1 to 4, wherein each of the plurality of nodes has a hierarchical layered structure in execution of software, which is configured by arranging from a top place to a bottom place, an application node or a service node, a proxy corresponding to a high-order portion of 5 the distributed object, a object transport structure and a remote class reference structure corresponding to a low-order portion of the distributed object, a network transport layer and a network interface circuit.

6. A computer-readable media storing programs that cause nodes corresponding to computers or processors interconnected with a network to actualize a human-machine interface system based on a distributed object model, wherein human-machine interface functions are actualized in forms of distributed objects allocated to 5 the nodes and are realized by mediating interaction between the nodes.

7. A human-machine interface system comprising:
a network;
a plurality of nodes that are interconnected with the network, wherein human-machine interface functions are actualized in forms of distributed objects allocated to 5 the nodes and are realized by mediating interaction between the nodes,
wherein each of the nodes corresponds to an application node that performs a

prescribed application for a human user by way of a human-machine interface function thereof or a service node that provides a specific service in relation with execution of the prescribed application.

8. A human-machine interface system according to claim 7, wherein there are provided a low-order service node that performs data processing depending on expression media such as sound and picture and a high-order service node that performs data processing independently of the expression media.

9. A human-machine interface system according to claim 7, wherein each of the nodes has a hierarchical layered structure in execution of software, which is configured by arranging from a top to a bottom, an application object or a service object, a proxy, an object transport structure, a remote class reference structure, a network transport

5 layer, and a network interface circuit.

10. A human-machine interface system according to claim 7, wherein the service corresponds to a speech recognition service or a speech synthesis service.